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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/451,286	11/30/1999	James Wichelman	10001187	8833

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AGILENT TECHNOLOGIES, INC.
INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT.
P.O. BOX 7599
M/S DL429
LOVELAND, CO 80537-0599

EXAMINER

RAMAN, USHA

ART UNIT PAPER NUMBER

2617

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/451,286

Applicant(s)

WICHELMAN ET AL.

Examiner

Usha Raman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claims 1, 11, 16 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell (US Pat. 6,425,132) in view of Kekic et al. (US Pat. 6,272,537) and in further view of Anderson et al. (US Pat. 5,850,388) and Cideon et al. (US Pat. 6,269,330).

In regards to claims 1, and 11, Chappell discloses a device that performs a spectral analysis of a node coupled to a cable head-end. The head end comprises a plurality of nodes that provide the cable services (a plurality of channels) from the head end to a plurality of subscribers. Therefore the Chappell's system comprises one group (being the head end), of number of nodes, each node having a number of channels (frequencies), wherein a switch (test point switch) is coupled the plurality of nodes, for controlling the analyzer interface with the nodes (see column 3 lines 4-9). The local interface performing the testing of the network (i.e. the ingress modem) comprises a micro-controller (processor) coupled to the ingress modem, which comprises a program memory

for storing software routines to be executed by the controller, and a display (110) coupled to the controller (and therefore to the local interface, the ingress modem). Chappell's system tests the channels by the use of a frequency sweep on a particular node to detect anomalies at a channel of that node, and display it to the display device, i.e. the ingress modem measures signals at different frequencies, until a stop frequency is reached, thereby testing a plurality of channels, automatically under the operation of the controller. Note abstract, column 1, lines 30-34, column 2, lines 43-64, column 3, lines 2-9, column 4, lines 27-30, lines 50-53, column 6, lines 14-17, lines 30-46 and column 13, lines 31-36 of Chappell.

Chappell teaches a graphical user interface for displaying the spectral analysis of the measurements, but lacks warning interface logic for generating a channel percent advisory upon the occurrence of an advisory event within the channel level; and generating a channel critical alarm indicator upon the occurrence of a critical channel event.

Kekic teaches the step of his principle of logging events and detecting different levels of alarming network conditions in an analyzer for any communication network and indicating it in a display. Specifically Kekic teaches indicating warning, and critical alarm status to indicate the (degrading or faulty) state of a network based on sequence of events. A series of events that cause a warning status to be triggered constitutes the advisory indication, while the series of events that cause a alarm status to be triggered constitutes the "critical" alarm

indication as indicated in figure 6B. Note figure 3B and descriptions in column 18, lines 33-57, column 21, lines 50-67, table 3 in column 22, lines 1-15, and column 76, lines 44-48 of Kekic.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Chappell with the teachings of Kekic, by implementing a warning and critical alarm status indicators that can be triggered upon the occurrence of a series of advisory events and critical events. The motivation would be to monitor network conditions in order to inform to a user what the results of the spectral analysis mean, thereby informing them of a continually degrading or faulty network.

The modified system lacks indicating a percent advisory for warnings.

Anderson teaches displaying various measured network statistics in a plurality of different formats including graphs, as well as a percentage format. Note figures 18-20 and description in column 24, lines 14-42 of Anderson et al.

It would have been obvious to one of ordinary skill to further modify the system by representing the warning indicator in a percent format to indicate to the user the percent offset (rather than measured values) of the network fault as taught by Anderson, thereby showing the users some meaningful results regarding quality of service.

The modified system lacks: logic to enable creation of, based upon user input data, and display of a test plan and a channel plan corresponding to at least one node encompassing all expected values for each service to be operated on

the node; and logic to conduct automatic, periodic testing of the signal characteristics of the node according to the channel plan and the test plan.

Cideon teaches the step of creating and display test plan, based upon user input data corresponding to at least one traffic node, encompassing all expected values for a service to be operated on the node. See column 6, lines 36-40, lines 44-56, column 19, lines 13-18, lines 22-27, lines 40-46. Cideon further teaches the step of conducting automatic, periodic testing of a node according to the test plan created. See column 6, lines 3-7, column 16, lines 24-28.

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system in view of Cideon's teachings by implementing a test plan and a channel plan (i.e. frequency sweep), based upon the user input data corresponding to at least one node, encompassing all values for a service to be operated on the node, and further conducting automatic periodic testing of the node according to the test plan and channel plan. The motivation is to allow the user to specify the various parameters to be monitored, and create a custom test plan accordingly.

In regards to claim 3, 5, 13 and 15, the modified system indicates upon performing a test on the network, a node performance as well as channel status can be tested to locate an anomaly to a particular channel on the node. Note Chappell column 5, lines 59-67 and column 6, lines 1-17. It would have been obvious to apply the extend the modifications of the analyzer made at the

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channel level to the node level in the modified system to include a node percent advisory and a node critical alarm means, in order to create monitor node-level conditions of a network.

In regards to claims 2, 4, 12, and 14, the modified system comprises the collective network performance statistics in addition to channel and node performance statistics. See Anderson column 13, lines 29-37.

In regards to claims 16 and 17, the modified system comprises the method of flagging advisory and critical events based on a sequence of events rather than simply a threshold value. Examiner takes official notice that frequent testing of nodes can aid in detecting the sequence of events prior to flagging critical and advisory events. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system by performing frequent testing of nodes in order to detect the sequence of events prior to flagging the critical and advisory events.

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

UR


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600